

Amendments to the claims

This list of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims

1. (Currently amended) Fluid flow control apparatus, comprising: a proportional fluid control valve having a fluid inlet and a fluid outlet; a pneumatic proportional control valve in communication with said proportional fluid control valve for modulating said proportional fluid control valve; means for measuring pressure drop; a controller in communication with said pressure drop measuring means and with said pneumatic proportional control valve for controlling the flow of fluid through said proportional fluid control valve in response to said measured pressure drop; said apparatus configured to interchangeably contain one of a plurality of a frictional flow element elements having a frictional flow element fluid inlet in fluid communication with said fluid outlet of said proportional fluid control valve and having a frictional flow element fluid outlet spaced from said frictional flow element fluid inlet, each of said frictional flow element elements comprising a helical coil having a unique length or diameter relative to any other of said plurality of frictional flow elements and creating a pressure drop between said frictional flow element fluid inlet and frictional flow element fluid outlet that is measured by said means for measuring pressure drop; means for measuring said pressure drop; a controller in communication with said pressure drop measuring means and with said pneumatic

~~proportional control valve for controlling the flow of fluid through said proportional fluid control valve in response to said measured pressure drop.~~

2. (Cancelled)

3. (Original) The fluid flow control apparatus of claim 1, further comprising means for sensing temperature of said fluid, and wherein said controller compares said sensed temperature to a predetermined temperature and controls said pneumatic proportional control valve in response to said comparison.

4. (Original) The fluid control apparatus of claim 1, wherein said means for measuring said pressure drop comprises a first pressure sensor for sensing pressure of said fluid at said fluid outlet of said proportional fluid control valve and a second pressure sensor for sensing pressure of said fluid at said frictional flow element fluid outlet.

5. (Original) The fluid control apparatus of claim 4, wherein said first pressure sensor is contained in a housing integral with said proportional fluid control valve.

6. (Original) The fluid control apparatus of claim 1, further comprising a suckback valve in pneumatic communication with said pneumatic proportional control valve.

7. (Original) The fluid control apparatus of claim 1, wherein said pneumatic proportional control valve is a solenoid.

8. (Original) The fluid control apparatus of claim 1, wherein said frictional flow element fluid inlet is in fluid communication with said fluid outlet of said proportional fluid control valve such that all of the fluid flowing from said fluid outlet of said valve must enter said fluid inlet of said frictional flow element.

9. (Currently amended) A method of controlling the dispense of fluid from a dispenser to a point of use, comprising: providing a proportional fluid control valve having a first fluid inlet and a first fluid outlet; determining the flow characteristics of said fluid; providing ~~a~~ an interchangeable frictional flow element in fluid communication with said first fluid outlet, said frictional flow element comprising a helical coil having a length and diameter chosen based upon said flow characteristics to create a pressure drop across said element ~~and creating a pressure drop~~; sensing said pressure drop across said frictional flow element; and modulating said proportional fluid control valve in response to said sensed pressure drop.

10. (Original) The method of claim 9, wherein a pneumatic proportional control valve is provided to modulate said proportional fluid control valve pneumatically.

11. (Previously presented) A method of controlling the dispense of

fluid from a dispenser to a point of use, comprising: providing a proportional fluid control valve having a first fluid inlet and a first fluid outlet; providing a frictional flow element in fluid communication with said first fluid outlet, said frictional flow element creating a pressure drop; sensing said pressure drop across said frictional flow element; and modulating said proportional fluid control valve in response to said sensed pressure drop, wherein a pneumatic proportional control valve is provided to modulate said proportional fluid control valve pneumatically, and further comprising holding the pneumatic proportional control valve open to allow a minimum level of purge gas to bleed from the pneumatic proportional control valve.

12. (Previously presented) A method of controlling the dispense of fluid from a dispenser to a point of use, comprising: providing a proportional fluid control valve having a first fluid inlet and a first fluid outlet; providing a frictional flow element in fluid communication with said first fluid outlet, said frictional flow element creating a pressure drop; sensing said pressure drop across said frictional flow element; and modulating said proportional fluid control valve in response to said sensed pressure drop, wherein a pneumatic proportional control valve is provided to modulate said proportional fluid control valve pneumatically, and wherein there are a plurality of fluid control valves, and wherein said pneumatic proportional control valve is held open at a set level such that the pneumatic pressure supplied to each said fluid control valve offsets differences among said

plurality of fluid control valves allowing each said fluid control valve to open in the same amount of time and/or with the same pressure.

13. (Original) The method of claim 10, further comprising providing a controller responsive to said measured pressure drop for controlling said pneumatic proportional control valve.

14. (Previously presented) The method of claim 11, wherein said frictional flow element comprises a helical coil.

15. (Original) The method of claim 9, further comprising means for regulating the fluid pressure of said fluid entering said first fluid inlet.

16-52. (Cancelled)

53. (Previously presented) the method of claim 12, wherein said frictional flow element comprises a helical coil.